

REMARKS

In the Office Action of January 21, 2009, the Examiner rejected claims 28, 29, 31 and 33 for obviousness under 35 USC 103(a) over Carmichael et al. and Audonnet et al., taken in view of McDonald and Meleon et al. Carmichael et al. is relied on for teaching MCV (CPV-1) and that antibodies are found in exposed dogs, concluding that the antibodies protected the dogs and that suggested the virus would be a good candidate for a whole, inactivated virus vaccine. Adonnet et al. is relied on for teaching that CHV and parvovirus (albeit CPV-2, a different virus) antigens can be used in a vaccine. McDonald is relied on for teaching the three common types of vaccines, including killed vaccines. Meleon et al. is relied on for teaching that the most efficient vaccines at the time of publication were classical, inactivated, virulent virus vaccines.

The rejection of claims 28, 29, 31 and 33 over Carmichael et al. and Audonnet et al., taken with McDonald and Meleon et al., is respectfully traversed.

Carmichael et al. discloses CPV-1 and provides a thorough clinical analysis of the disease. It does not in any way address immunization against the virus. The fact that half the dogs tested showed the presence of antibodies does not in any way suggest that the virus would provide protection if inactivated and administered in a vaccine. It merely indicated that exposure resulted in antibody production, as with any foreign antigen. Certainly the animals that succumbed produced antibodies as well, but were not protected. In view of the still recognized uncertainty of the vaccine art, there is nothing in Carmichael et al. to create the reasonable expectation that a killed virus vaccine would assuredly provide protection, as demonstrated by Applicants in their examples.

Audonnet et al. is directed to the use of plasmids for expressing canine antigens using DNA vaccines. The antigens may include CHV as well as CPV. However the CPV referred to is CPV-2, not the CPV-1 of the present invention; a different virus. The vaccines comprise plasmids, polynucleotide vaccines for expressing multiple antigens *in vivo*, in immunized animals; a different vaccine. It may be noted that there are no examples showing protection against challenge afforded by the vaccine in the disclosure.

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McDonald provides a cursory overview of vaccination protocols. Killed vaccines are mentioned, along with their deficiencies (“shorter duration of immunity and weaker cell-mediated response”), which are contrasted with the advantages of modified live vaccines in that regard. He also provides a discussion of factors affecting vaccine efficacy, underscoring the uncertainty in vaccination outcome. Canine diseases for which there are vaccines are listed on page 228, although CPV-1 is not included.

Meleon et al. reports that subunit vaccines had not yet been as successful as inactivated, virulent virus vaccine, but progress was being made in making synthetic peptides. Nothing of particular relevance to the present invention.

Applicants do not dispute that inactivated, whole virus vaccines are well known in the art, and that as early as 1994 Carmichael et al. published on CPV-1. Nothing in the cited references, however, taken alone or together, suggests that an inactivated, whole virus CPV-1 vaccine would protect dogs against challenge, which applicants have shown and are believed to be the first to have achieved.

Claims 34-37 and 40-42 stand rejected under 35 USC 103(a) for being obvious over Carmichael et al. and Audonnet et al., taken in view of McDonald and further in view of Poulet et al and Correa. Poulet et al. is said to add the method of protecting puppies against CHV-1 by vaccinating pregnant bitches to protect puppies after nursing. Correa is relied on for teaching the importance of puppies consuming colostrum within the first 12 to 24 hours.

The rejection of claims 34-37 and 40-42 over the previous references taken with Poulet et al. and Correa is respectfully traversed. Poulet et al. reports on experiments with a vaccine containing an antigen fraction prepared from CHV-1, canine herpes virus. It is not an inactivated whole virus vaccine and it is not CPV-1. Correa does not make up for these deficiencies.

None of the references teaches a CPV-1 vaccine, and none of the references teaches using an effective inactivated, whole cell, virus vaccine for protecting pups against CPV-1 infection, as applicants claim. In view of the recognized uncertainty of the vaccine art, it is believed that the present claims are allowable over the cited references. Favorable action is solicited.

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Should the Examiner believe that a conference would be helpful in advancing the prosecution of this application, she is invited to telephone Applicants' attorney at the number below.

Applicants do not believe that any other fee is due in connection with this filing. If, however, Applicants do owe any such fee(s), the Commissioner is hereby authorized to charge the fee(s) to Deposit Account No. 19-0365. In addition, if there is ever any other fee deficiency or overpayment under 37 C.F.R. §1.16 or 1.17 in connection with this patent application, the Commissioner is hereby authorized to charge such deficiency or reimburse such overpayment to Deposit Account No.19-0365.

Respectfully submitted,

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